

## VII. COMPLIANCE AND ENFORCEMENT HISTORY

### Background

To date, EPA has focused much of its attention on measuring compliance with specific environmental statutes. This approach allows the Agency to track compliance with the Clean Air Act, the Resource Conservation and Recovery Act, the Clean Water Act, and other environmental statutes. Within the last several years, the Agency has begun to supplement single-media compliance indicators with facility-specific, multimedia indicators of compliance. In doing so, EPA is in a better position to track compliance with all statutes at the facility level, and within specific industrial sectors.

A major step in building the capacity to compile multimedia data for industrial sectors was the creation of EPA's Integrated Data for Enforcement Analysis (IDEA) system. IDEA has the capacity to "read into" the Agency's single-media databases, extract compliance records, and match the records to individual facilities. The IDEA system can match Air, Water, Waste, Toxics/Pesticides/EPCRA, TRI, and Enforcement Docket records for a given facility, and generate a list of historical permit, inspection, and enforcement activity. IDEA also has the capability to analyze data by geographic area and corporate holder. As the capacity to generate multimedia compliance data improves, EPA will make available more in-depth compliance and enforcement information. Additionally, sector-specific measures of success for compliance assistance efforts are under development.

### Compliance and Enforcement Profile Description

Using inspection, violation and enforcement data from the IDEA system, this section provides information regarding the historical compliance and enforcement activity of this sector. In order to mirror the facility universe reported in the Toxic Chemical Profile, the data reported within this section consists of records only from the TRI reporting universe. With this decision, the selection criteria are consistent across sectors with certain exceptions. For the sectors that do not normally report to the TRI program, data have been provided from EPA's Facility Indexing System (FINDS) which tracks facilities in all media databases. Please note, in this section, EPA does not attempt to define the actual number of facilities that fall within each sector. Instead, the section portrays the records of a subset of facilities within the sector that are well defined within EPA databases.

As a check on the relative size of the full sector universe, most notebooks contain an estimated number of facilities within the sector according to the

Bureau of Census (See Section II). With sectors dominated by small businesses, such as metal finishers and printers, the reporting universe within the EPA databases may be small in comparison to Census data. However, the group selected for inclusion in this data analysis section should be consistent with this sector's general make-up.

Following this introduction is a list defining each data column presented within this section. These values represent a retrospective summary of inspections and enforcement actions, and solely reflect EPA, State, and local compliance assurance activities that have been entered into EPA databases. To identify any changes in trends, the EPA ran two data queries, one for the past five calendar years (August 10, 1990 to August 9, 1995) and the other for the most recent twelve-month period (August 10, 1994 to August 9, 1995). The five-year analysis gives an average level of activity for that period for comparison to the more recent activity.

Because most inspections focus on single-media requirements, the data queries presented in this section are taken from single media databases. These databases do not provide data on whether inspections are state/local or EPA-led. However, the table breaking down the universe of violations does give the reader a crude measurement of the EPA's and states' efforts within each media program. The presented data illustrate the variations across regions for certain sectors.<sup>e</sup> This variation may be attributable to state/local data entry variations, specific geographic concentrations, proximity to population centers, sensitive ecosystems, highly toxic chemicals used in production, or historical noncompliance. Hence, the exhibited data do not rank regional performance or necessarily reflect which regions may have the most compliance problems.

This section provides summary information about major cases that have affected this sector, and a list of Supplementary Environmental Projects (SEPs). SEPs are compliance agreements that reduce a facility's stipulated penalty in return for an environmental project that exceeds the value of the reduction. Often, these projects fund pollution prevention activities that can significantly reduce the future pollutant loadings of a facility.

The final part of this section provides highlights from interviews with several knowledgeable EPA inspectors. These interviews provide the inspector's viewpoint on where compliance problems occur, why they

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<sup>e</sup> EPA Regions include the following states: I (CT, MA, ME, RI, NH, VT); II (NJ, NY, PR, VI); III (DC, DE, MD, PA, VA, WV); IV (AL, FL, GA, KY, MS, NC, SC, TN); V (IL, IN, MI, MN, OH, WI); VI (AR, LA, NM, OK, TX); VII (IA, KS, MO, NE); VIII (CO, MT, ND, SD, UT, WY); IX (AZ, CA, HI, NV, Pacific Trust Territories); X (AK, ID, OR, WA).

occur, and possible solutions to eliminate these problems. The reader should not reach any definitive conclusions about an industry sector's ability or willingness to comply based on these interviews. These interviews provide only anecdotal information about the interactions occurring between inspectors and the facilities they inspect.

## Compliance and Enforcement Data Definitions

### General Definitions

**Facility Indexing System (FINDS)** -- this system assigns a common facility number to EPA single-media permit records. The FINDS identification number allows EPA to compile and review all permit, compliance, enforcement and pollutant release data for any given regulated facility.

**Integrated Data for Enforcement Analysis (IDEA)** -- is a data integration system that can retrieve information from the major EPA program office databases. IDEA uses the FINDS identification number to “glue together” separate data records from EPA’s databases. This is done to create a “master list” of data records for any given facility. Some of the data systems accessible through IDEA are: AIRS (Air Facility Indexing and Retrieval System, Office of Air and Radiation), PCS (Permit Compliance System, Office of Water), RCRIS (Resource Conservation and Recovery Information System, Office of Solid Waste), NCDB (National Compliance Data Base, Office of Prevention, Pesticides, and Toxic Substances), CERCLIS (Comprehensive Environmental and Liability Information System, Superfund), and TRIS (Inventory System). IDEA also contains information from outside sources such as Dun and Bradstreet and the Occupational Safety and Health Administration (OSHA). Most data queries displayed in notebook sections IV and VII were conducted using IDEA.

### Data Table Column Heading Definitions

**Facilities in Search** -- are based on the universe of TRI reporters within the listed SIC code range. For industries not covered under TRI reporting requirements, the notebook uses the FINDS universe for executing data queries. The SIC code range selected for each search is defined by each notebook's selected SIC code coverage described in Section II.

**Facilities Inspected** -- indicates the level of EPA and state agency facility inspections for the facilities in this data search. These values show what percentage of the facility universe is inspected in a 12 or 60 month period.

This column does not count non-inspectional compliance discharge reports.

**Number of Inspections** -- measures the total number of inspections conducted in this sector. An inspection event is counted each time it is entered into a single media database.

**Average Time Between Inspections** -- provides an average length of time, expressed in months, that a compliance inspection occurs at a facility within the defined universe.

**Facilities with One or More Enforcement Actions** -- expresses the number of facilities that were party to at least one enforcement action within the defined time period. This category is broken down further into federal and state actions. Data are obtained for administrative, civil/judicial, and criminal enforcement actions. Administrative actions include Notices of Violation (NOVs). A facility with multiple enforcement actions is only counted once in this column (facility with three enforcement actions counts as one). All percentages that appear are referenced to the number of facilities inspected.

**Total Enforcement Actions** -- describes the total number of enforcement actions identified for an industrial sector across all environmental statutes. A facility with multiple enforcement actions is counted multiple times (a facility with three enforcement actions counts as three).

**State Lead Actions** -- shows what percentage of the total enforcement actions are taken by state and local environmental agencies. Varying levels of use by states of EPA data systems may limit the volume of actions accorded state enforcement activity. Some states extensively report enforcement activities into EPA data systems, while other states may use their own data systems.

**Federal Lead Actions** -- shows what percentage of the total enforcement actions are taken by the United States Environmental Protection Agency. This value includes referrals from state agencies. Many of these actions result from coordinated or joint state/federal efforts.

**Enforcement to Inspection Rate** -- expresses how often enforcement actions result from inspections. This value is a ratio of enforcement actions to inspections, and is presented for comparative purposes only. This measure is a rough indicator of the relationship between inspections and enforcement. This measure simply indicates historically how many enforcement actions can be attributed to inspection activity. Reported inspections and enforcement actions under the Clean Water Act (PCS), the

Clean Air Act (AFS) and the Resource Conservation and Recovery Act (RCRA) are included in this ratio. Inspections and actions from the TSCA/FIFRA/EPCRA database are not factored into this ratio because most of the actions taken under these programs are not the result of facility inspections. This ratio does not account for enforcement actions arising from non-inspection compliance monitoring activities (e.g., self-reported water discharges) that can result in enforcement action within the CAA, CWA and TSCA.

**Facilities with One or More Violations Identified** -- indicates the number percentage of inspected facilities having a violation identified in one of the following data categories: In Violation or Significant Violation Status (CAA); Reportable Noncompliance, Current Year Noncompliance, Significant Noncompliance (CWA); Noncompliance and Significant Noncompliance (FIFRA, TSCA, and EPCRA); Unresolved Violation and Unresolved High Priority Violation (RCRA). The values presented for this column reflect the extent of noncompliance within the measured time frame, but do not distinguish between the severity of the noncompliance. Percentages within this column may exceed 100 percent because facilities can be in violation status without being inspected. Violation status may be a precursor to an enforcement action, but does not necessarily indicate that an enforcement action will occur.

**Media Breakdown of Enforcement Actions and Inspections** -- four columns identify the proportion of total inspections and enforcement actions within EPA Air, Water, Waste, and TSCA/FIFRA/EPCRA databases. Each column is a percentage of either the "Total Inspections," or the "Total Actions" column.

### VII.A. Dry Cleaning Industry Compliance History

Exhibit 17 provides an overview of the reported compliance and enforcement data for the dry cleaning industry over the past five years (August 1990 to August 1995). These data are also broken out by EPA Region thereby permitting geographical comparisons. A few points evident from the data are listed below.

- Within the limited universe of dry cleaning facilities retrieved from the database search, the number of dry cleaning facilities inspected was only 26 percent of those identified. In the past five years, the facilities identified were inspected on average every seven to eight years.

- A significantly larger proportion of facilities identified in the database search had been inspected than had enforcement actions brought against them.
- State lead enforcement actions accounted for almost all of the enforcement actions brought against dry cleaning facilities over the five year period.

<b>Exhibit 17: Five-Year Enforcement and Compliance Summary for Dry Cleaning</b>										
<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>E</b>	<b>F</b>	<b>G</b>	<b>H</b>	<b>I</b>	<b>J</b>	
<b>Region</b>	<b>Facilities in Search</b>	<b>Facilities Inspected</b>	<b>Number of Inspections</b>	<b>Average Months Between Inspections</b>	<b>Facilities with 1 or More Enforcement Actions</b>	<b>Total Enforcement Actions</b>	<b>Percent State Lead Actions</b>	<b>Percent Federal Lead Actions</b>	<b>Enforcement to Inspection Rate</b>	
I	146	8	14	625	0	0	--	--	--	
II	12	3	4	180	0	0	--	--	--	
III	22	17	36	37	1	1	100%	0%	0.03	
IV	485	170	460	63	24	95	100%	0%	0.21	
V	45	22	72	38	2	4	100%	0%	0.06	
VI	188	9	11	1,025	1	1	100%	0%	0.09	
VII	8	6	20	24	0	0	--	--	--	
VIII	14	6	8	105	0	0	--	--	--	
IX	2	1	5	24	1	2	44%	56%	0.45	
X	11	3	3	220	0	0	--	--	--	
<b>TOTAL</b>	<b>933</b>	<b>245</b>	<b>633</b>	<b>88</b>	<b>29</b>	<b>103</b>	<b>99%</b>	<b>1%</b>	<b>0.16</b>	

## VII.B. Comparison of Enforcement Activity Between Selected Industries

Exhibits 18 and 19 allow the compliance history of the dry cleaning industry to be compared to the other industries covered by the industry sector notebooks. Comparisons between Exhibits 18 and 19 permit the identification of trends in compliance and enforcement records of the industry by comparing data covering the last five years to that of the past year. Some points evident from the data are listed below.

- Of those sectors listed, the dry cleaning industry has been the least frequently inspected industry over the past five years. The average time between inspections for the facilities identified is 88 months.
- The industry has a relatively small percentage of facilities with violations and enforcement actions, in comparison to the other sectors.
- The rate of enforcement actions per inspection over the past five years is relatively high for the industry, but has decreased over the past year.

Exhibits 20 and 21 provide a more in-depth comparison between the dry cleaning industry and other sectors by breaking out the compliance and enforcement data by environmental statute. As in the previous Exhibits (Exhibits 18 and 19), the data cover the last five years (Exhibit 20) and the last one year (Exhibit 21) to facilitate the identification of recent trends. A few points evident from the data are listed below.

- The number of inspections carried out under each environmental statute as a percent of the total number of inspections has changed only slightly between the average of the past five years and that of the past year.
- The number of enforcement actions taken under RCRA dominate both the percentage of inspections as well as the percentage of enforcement actions.
- In the past year there has been a significant drop in the proportions of enforcement actions taken under RCRA from the average of the past five years, primarily resulting from an increase in enforcement actions taken under CWA.

Exhibit 18: Five-Year Enforcement and Compliance Summary for Selected Industries									
A	B	C	D	E	F	G	H	I	J
Industry Sector	Facilities in Search	Facilities Inspected	Number of Inspections	Average Months Between Inspections	Facilities with 1 or More Enforcement Actions	Total Enforcement Actions	Percent State Lead Actions	Percent Federal Lead Actions	Enforcement to Inspection Rate
Pulp and Paper	306	265	3,766	5	115	502	78%	22%	0.13
Printing	4,106	1,035	4,723	52	176	514	85%	15%	0.11
Inorganic Chemicals	548	298	3,034	11	99	402	76%	24%	0.13
Organic Chemicals	412	316	3,864	6	152	726	66%	34%	0.19
Petroleum Refining	156	145	3,257	3	110	797	66%	34%	0.25
Iron and Steel	374	275	3,555	6	115	499	72%	28%	0.14
<b>Dry Cleaning</b>	<b>933</b>	<b>245</b>	<b>633</b>	<b>88</b>	<b>29</b>	<b>103</b>	<b>99%</b>	<b>1%</b>	<b>0.16</b>
Metal Mining	873	339	1,519	34	67	155	47%	53%	0.10
Non-Metallic Mineral Mining	1,143	631	3,422	20	84	192	76%	24%	0.06
Lumber and Wood	464	301	1,891	15	78	232	79%	21%	0.12
Furniture	293	213	1,534	11	34	91	91%	9%	0.06
Rubber and Plastic	1,665	739	3,386	30	146	391	78%	22%	0.12
Stone, Clay, and Glass	468	268	2,475	11	73	301	70%	30%	0.12
Fabricated Metal	2,346	1,340	5,509	26	280	840	80%	20%	0.15
Nonferrous Metal	844	474	3,097	16	145	470	76%	24%	0.15
Electronics	405	222	777	31	68	212	79%	21%	0.27
Automobiles	598	390	2,216	16	81	240	80%	20%	0.11

Exhibit 19: One-Year Inspection and Enforcement Summary for Selected Industries									
A Industry Sector	B Facilities in Search	C Facilities Inspected	D Number of Inspections	E Facilities with 1 or More Violations		F Facilities with 1 or more Enforcement Actions		G Total Enforcement Actions	H Enforcement to Inspection Rate
				Number	Percent *	Number	Percent*		
Pulp and Paper	306	189	576	162	86%	28	15%	88	0.15
Printing	4,106	397	676	251	63%	25	6%	72	0.11
Inorganic Chemicals	548	158	427	167	106%	19	12%	49	0.12
Organic Chemicals	412	195	545	197	101%	39	20%	118	0.22
Petroleum Refining	156	109	437	109	100%	39	36%	114	0.26
Iron and Steel	374	167	488	165	99%	20	12%	46	0.09
<b>Dry Cleaning</b>	<b>933</b>	<b>80</b>	<b>111</b>	<b>21</b>	<b>26%</b>	<b>5</b>	<b>6%</b>	<b>11</b>	<b>0.10</b>
Metal Mining	873	114	194	82	72%	16	14%	24	0.13
Non-metallic Mineral Mining	1,143	253	425	75	30%	28	11%	54	0.13
Lumber and Wood	464	142	268	109	77%	18	13%	42	0.58
Furniture	293	160	113	66	41%	3	2%	5	0.55
Rubber and Plastic	1,665	271	435	289	107%	19	7%	59	0.14
Stone, Clay, and Glass	468	146	330	116	79%	20	14%	66	0.20
Nonferrous Metals	844	202	402	282	140%	22	11%	72	0.18
Fabricated Metal	2,346	477	746	525	110%	46	10%	114	0.15
Electronics	405	60	87	80	133%	8	13%	21	0.24
Automobiles	598	169	284	162	96%	14	8%	28	0.10

<b>Exhibit 20: Five-Year Inspection and Enforcement Summary by Statute for Selected Industries</b>											
Industry Sector	Facilities Inspected	Total Inspections	Total Enforcement Actions	Clean Air Act		Clean Water Act		Resource Conservation and Recovery Act		FIFRA/TSCA/EPCRA/Other	
				% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions
Pulp and Paper	265	3,766	502	51%	48%	38%	30%	9%	18%	2%	3%
Printing	1,035	4,723	514	49%	31%	6%	3%	43%	62%	2%	4%
Inorganic Chemicals	298	3,034	402	29%	26%	29%	17%	39%	53%	3%	4%
Organic Chemicals	316	3,864	726	33%	30%	16%	21%	46%	44%	5%	5%
Petroleum Refining	145	3,237	797	44%	32%	19%	12%	35%	52%	2%	5%
Iron and Steel	275	3,555	499	32%	20%	30%	18%	37%	58%	2%	5%
<b>Dry Cleaning</b>	<b>245</b>	<b>633</b>	<b>103</b>	<b>15%</b>	<b>1%</b>	<b>3%</b>	<b>4%</b>	<b>83%</b>	<b>93%</b>	<b>0%</b>	<b>1%</b>
Metal Mining	339	1,519	155	35%	17%	57%	60%	6%	14%	1%	9%
Non-metallic Mineral Mining	631	3,422	192	65%	46%	31%	24%	3%	27%	0%	4%
Lumber and Wood	301	1,891	232	31%	21%	8%	7%	59%	67%	2%	5%
Furniture	293	1,534	91	52%	27%	1%	1%	45%	64%	1%	8%
Rubber and Plastic	739	3,386	391	39%	15%	13%	7%	44%	68%	3%	10%
Stone, Clay, and Glass	268	2,475	301	45%	39%	15%	5%	39%	51%	2%	5%
Nonferrous Metals	474	3,097	470	36%	22%	22%	13%	38%	54%	4%	10%
Fabricated Metal	1,340	5,509	840	25%	11%	15%	6%	56%	76%	4%	7%
Electronics	222	777	212	16%	2%	14%	3%	66%	90%	3%	5%
Automobiles	390	2,216	240	35%	15%	9%	4%	54%	75%	2%	6%

<b>Exhibit 21: One-Year Inspection and Enforcement Summary by Statute for Selected Industries</b>												
Industry Sector	Facilities Inspected	Total Inspections	Total Enforcement Actions	Clean Air Act		Clean Water Act		Resource Conservation and Recovery Act		FIFRA/TSCA/EPCRA/Other		
				% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	% of Total Inspections	% of Total Actions	
Pulp and Paper	189	576	88	56%	69%	35%	21%	10%	7%	0%	3%	
Printing	397	676	72	50%	27%	5%	3%	44%	66%	0%	4%	
Inorganic Chemicals	158	427	49	26%	38%	29%	21%	45%	36%	0%	6%	
Organic Chemicals	195	545	118	36%	34%	13%	16%	50%	49%	1%	1%	
Petroleum Refining	109	437	114	50%	31%	19%	16%	30%	47%	1%	6%	
Iron and Steel	167	488	46	29%	18%	35%	26%	36%	50%	0%	6%	
<b>Dry Cleaning</b>	<b>80</b>	<b>111</b>	<b>11</b>	<b>21%</b>	<b>4%</b>	<b>1%</b>	<b>22%</b>	<b>78%</b>	<b>67%</b>	<b>0%</b>	<b>7%</b>	
Metal Mining	114	194	24	47%	42%	43%	34%	10%	6%	0%	19%	
Non-metallic Mineral Mining	253	425	54	69%	58%	26%	16%	5%	16%	0%	11%	
Lumber and Wood	142	268	42	29%	20%	8%	13%	63%	61%	0%	6%	
Furniture	293	160	5	58%	67%	1%	10%	41%	10%	0%	13%	
Rubber and Plastic	271	435	59	39%	14%	14%	4%	46%	71%	1%	11%	
Stone, Clay, and Glass	146	330	66	45%	52%	18%	8%	38%	37%	0%	3%	
Nonferrous Metals	202	402	72	33%	24%	21%	3%	44%	69%	1%	4%	
Fabricated Metal	477	746	114	25%	14%	14%	8%	61%	77%	0%	2%	
Electronics	60	87	21	17%	2%	14%	7%	69%	87%	0%	4%	
Automobiles	169	284	28	34%	16%	10%	9%	56%	69%	1%	6%	

## VII.C. Review of Major Legal Actions

This section provides summary information about major cases that have affected this sector, and a list of Supplementary Environmental Projects (SEPs). SEPs are compliance agreements that reduce a facility's stipulated penalty in return for an environmental project that exceeds the value of the reduction. Often, these projects fund pollution prevention activities that can significantly reduce the future pollutant loadings of a facility.

### VII.C.1. Review of major cases

Historically, OECA's Office of Regulatory Enforcement does not regularly compile information related to major cases and pending litigation within an industry sector. The staff are willing to pass along such information to Agency staff as requests are made. In addition, summaries of completed enforcement actions are published each fiscal year in the Enforcement Accomplishments Report. To date, these summaries are not organized by industry sector. (Contact: Office of Enforcement Capacity and Outreach, 202-260-4140)

### VII.C.2. Supplementary Environmental Projects (SEPs)

Each Region's summary of Supplemental Environmental Projects (SEPs) undertaken in federal fiscal years 1993 and 1994 were reviewed. None was identified as being applied to a dry cleaning operation or establishment. Many process changes have been demonstrated which may be suitable for use as SEPs (see Pollution Prevention Opportunities - Section V.). However, because federal enforcement actions within the dry cleaning industry are few (one during the period from 1989-1994), the chances that SEPs are recommended or adopted for dry cleaners is reduced.

## VIII. COMPLIANCE ASSURANCE ACTIVITIES AND INITIATIVES

This section highlights the activities undertaken by this industry sector and public agencies to voluntarily improve the sector's environmental performance. These activities include those independently initiated by industrial trade associations. In this section, the notebook also contains a listing and description of national and regional trade associations.

### VIII.A. Sector-related Environmental Programs and Activities

#### *Design for the Environment*

The Environmental Protection Agency's Design for the Environment (DfE) program uses a non-regulatory, voluntary, and pro-active approach in working with industry and environmental and human health groups to reduce risk. The Design for the Environment (DfE) program was created by the Office of Pollution Prevention and Toxics of the U.S. Environmental Protection Agency in 1992 to promote the incorporation of pollution prevention principles in the design of products and processes through voluntary partnerships with industry, professional organizations, state and local governments, other federal agencies, and the public. The DfE provides businesses with the information needed to design for the environment and to help businesses use this information to make environmentally informed choices. The DfE program also works to make sure that the information reaches the people who make the choices - from buyers to industrial design engineers.

The Dry Cleaning (DfE) program has identified control technologies and alternative solvents and processes that might be used to reduce solvent releases from the industry. The Agency is evaluating the risks, costs and benefits of each alternative (including setting up an alternative process demonstration) and will publicize the results so that individual dry cleaners can understand the pros and cons of each alternative. Examples of the DfE's work in the dry cleaning industry include the following:

The DfE convened the International Roundtable of Pollution Prevention and Control in the Dry Cleaning Industry. Researchers, industry representatives, and government officials met to exchange information on issues related to the dry cleaning industry, including exposure reduction, regulation, and information dissemination.

The DfE program is producing a Cleaner Technologies Substitute Assessment (CTSA) for the dry cleaning industry to examine both existing and emerging technologies. The Agency expects to release a draft CTSA on existing technologies and another on emerging technologies sometime in 1995. The first phase of the CTSA will examine traditional, solvent-

based technologies. The new or alternative technologies, such as multiprocess wet cleaning, machine wet cleaning, liquid carbon dioxide technology, and microwave drying will be addressed in the second phase of the CTSA.

In November and December of 1992, the DfE program, in collaboration with the dry cleaning industry, conducted a short term, high volume demonstration to compare the costs and performance of an aqueous alternative process (multiprocess wet cleaning) to the traditional dry cleaning method that uses perchloroethylene.

As part of the Agency's outreach program, the DfE partnership produced a wet cleaning brochure entitled *Summary of a Report on Multiprocess Wet Cleaning*, to assist dry cleaners and consumers in learning more about how their choices and actions can affect the environment. The Agency also has distributed brochures and fact sheets on alternative cleaning processes, compiled case studies and success stories, and produced exhibits at trade shows to keep the public and the dry cleaning industry informed of the DfE project's activities.

To further test the viability of the wet cleaning process, the Agency has launched a two-year demonstration project in three demonstration sites around the United States that will establish the performance of wet cleaning methods under "real world" conditions. Two demonstration sites will test the full range of garments typically handled by professional clothes cleaners using only various wet cleaning technologies/techniques; while the one site will offer both wet and dry cleaning services. Technologies to be tested include: multiprocess wet cleaning; machine-based wet cleaning; and microwave drying to be used in combination with both cleaning methods.

The DfE project is developing a certification program centered around solvent use reduction, worker safety, and consumer awareness.

The Agency currently is working with the Federal Trade Commission on the labeling of "Dry Clean Only" garments. Public comments are being reviewed regarding proposed changes that attempt to allow for other forms of cleaning without increasing the liability of the dry cleaner. Currently, if a "Dry Clean Only" garment is damaged when cleaned using an alternative method, the dry cleaner is held liable. If the same garment is damaged during the dry cleaning process, the manufacturer is held liable. Proposed changes will make the garment label less restrictive and allow other forms of cleaning to be used without penalty. (Contact: Pollution Prevention Clearinghouse, PPIC, 202-260-1023)

**VIII.B. EPA Voluntary Programs***33/50 Program*

The "33/50 Program" is EPA's voluntary program to reduce toxic chemical releases of eighteen chemicals from manufacturing facilities. Participating companies pledge to reduce their toxic chemical releases by 33 percent as of 1992 and by 50 percent as of 1995. Certificates of Appreciation have been given out to participants meeting their 1992 goals. The list of chemicals includes seventeen high-use chemicals reported (including perchloroethylene) in the Toxics Release Inventory and dioxin. Because dry cleaning is a service, dry cleaners are not eligible for the 33/50 program even though perchloroethylene is covered by the program. (Contact: Mike Burns 202-260-6394 or 33/50 Program 202-260-6907)

*Environmental Leadership Program*

The Environmental Leadership Program (ELP) is a national initiative piloted by EPA and state agencies in which facilities have volunteered to demonstrate innovative approaches to environmental management and compliance. EPA has selected 12 pilot projects at industrial facilities and federal installations which will demonstrate the principles of the ELP program. These principles include: environmental management systems, multimedia compliance assurance, third-party verification of compliance, public measures of accountability, community involvement, and mentor programs. In return for participating, pilot participants receive public recognition and are given a period of time to correct any violations discovered during these experimental projects. At this time, no dry cleaning operations are ELP participants. (Contact: Tai-ming Chang, ELP Director, 202-564-5081 or Robert Fentress, U.S. EPA, 202-564-7023)

*Project XL*

Project XL was initiated in March 1995 as a part of President Clinton's *Reinventing Environmental Regulation* initiative. The projects seek to achieve cost effective environmental benefits by allowing participants to replace or modify existing regulatory requirements on the condition that they produce greater environmental benefits. EPA and program participants will negotiate and sign a Final Project Agreement, detailing specific objectives that the regulated entity shall satisfy. In exchange, EPA will allow the participant a certain degree of regulatory flexibility and may seek changes in underlying regulations or statutes. Participants are encouraged to seek stakeholder support from local governments, businesses, and environmental groups. EPA hopes to implement fifty pilot projects in four categories including facilities, sectors, communities, and government agencies regulated by EPA. Applications will be accepted on

a rolling basis and projects will move to implementation within six months of their selection. For additional information regarding XL Projects, including application procedures and criteria, see the May 23, 1995, Federal Register Notice, or contact Jon Kessler at EPA's Office of Policy Analysis 202-260-4034.

### *Green Lights Program*

EPA's Green Lights program was initiated in 1991 and has the goal of preventing pollution by encouraging U.S. institutions to use energy-efficient lighting technologies. The program has over 1,500 participants which include major corporations; small and medium sized businesses; federal, State and local governments; non-profit groups; schools; universities; and health care facilities. Each participant is required to survey their facilities and upgrade lighting wherever it is profitable. EPA provides technical assistance to the participants through a decision support software package, workshops and manuals, and a financing registry. EPA's Office of Air and Radiation is responsible for operating the Green Lights Program. (Contact: Maria Tikoff at 202-233-9178 or the Green Light/Energy Star Hotline at 202-775-6650)

### *WasteWi\$e Program*

The WasteWi\$e Program was started in 1994 by EPA's Office of Solid Waste and Emergency Response. The program is aimed at reducing municipal solid wastes by promoting waste minimization, recycling collection and the manufacturing and purchase of recycled products. As of 1994, the program had about 300 companies as members, including a number of major corporations. Members agree to identify and implement actions to reduce their solid wastes and must provide EPA with their waste reduction goals along with yearly progress reports. EPA, in turn, provides technical assistance to member companies and allows the use of the WasteWi\$e logo for promotional purposes. (Contact: Lynda Wynn 202-260-0700 or the WasteWi\$e Hotline at 800-372-9473)

### *Climate Wise Recognition Program*

The Climate Change Action Plan was initiated in response to the U.S. commitment to reduce greenhouse gas emissions in accordance with the Climate Change Convention of the 1990 Earth Summit. As part of the Climate Change Action Plan, the Climate Wise Recognition Program is a partnership initiative run jointly by EPA and the Department of Energy. The program is designed to reduce greenhouse gas emissions by encouraging reductions across all sectors of the economy, encouraging participation in the full range of Climate Change Action Plan initiatives, and fostering innovation. Participants in the program are required to

identify and commit to actions that reduce greenhouse gas emissions. The program, in turn, gives organizations early recognition for their reduction commitments; provides technical assistance through consulting services, workshops, and guides; and provides access to the program's centralized information system. At EPA, the program is operated by the Air and Energy Policy Division within the Office of Policy Planning and Evaluation. (Contact: Pamela Herman 202-260-4407)

#### *Office of Enforcement Compliance Assurance*

The Office of Compliance is compiling a list of resource materials on pollution prevention and contacts in the dry cleaning industry. This is the first of several projects planned to help reduce risk from dry cleaners. (Contact: Joyce Chandler 202-564-7073)

### **VIII.C. Trade Association/Industry Sponsored Activity**

#### **VIII.C.1. Environmental programs**

Several trade associations including the Neighborhood Cleaner's Association, the International Fabricare Institute (IFI) and the state and regional affiliates of IFI have instituted environmental programs. These include: introducing an environmental certificate program that provides members information on good environmental practices and then tests them on this knowledge, training sessions in alternative technologies, and information pamphlets on environmental laws and compliance. The additional trade association activities are listed below.

#### **VIII.C.2. Summary of trade associations**

Neighborhood Cleaners Association (NCA)  
252 West 29th Street  
New York, NY 10001-5201  
Tel: (212) 967-3002

Contact: Bill Seitz

The NCA is a worldwide trade organization with over 4,000 members. NCA provides outreach to its members through monthly bulletins, through the NCA's Consumer Education Program, and educational courses on dry cleaning issues. NCA also offers representation for its members at all levels of government including the Federal Trade Commission.

Federation of Korean Drycleaners Association (FKDA)  
25606 Alicia Pkwy  
Laguna Hills, CA 92653  
Tel: (714) 770-8613

Contact: Hank Kim

The FKDA was founded in 1986 and is an umbrella organization representing 30 regional Korean dry cleaning associations throughout the U.S. It represents approximately 12,000 members, and educates its members by providing FKDA newsletters as well as organizing educational seminars on subjects such as pollution prevention and other critical issues.

International Fabricare Institute (IFI)  
12251 Tech Road  
Silver Spring, Maryland 20904  
Tel: (301) 622-1900

Contact: Joe Meijer

The association is a worldwide organization of dry cleaners and launderers as well as organizations and individuals concerned with professional garment cleaning, care and serviceability. There are currently over 12,000 members. The association provides publications to aid members technically and in business, represents cleaners' interest in legislative activities, as well as provides testing services for products and training for employees.

### **State Fabricare Institutes**

Many states or regions have trade associations that are affiliated with the International Fabricare Institute. For more information call the IFI.

Textile Care Allied Trade Association, Inc. (TCATA)  
200 Broadacres Drive  
Bloomfield, NJ 07003  
Tel: (201) 338-7700

Contact: David Cotter

TCATA has existed since 1920 and represents manufacturers and distributors of commercial laundry and dry cleaning equipment and supplies. There are currently 275 members. Its primary concern is addressing issues that affect the industry's allied trades exclusively. The association provides newsletters to its members; coordinates an annual convention; co-sponsors a biennial trade show; and provides information on machinery requirements and certain market information.

Fabricare Legislative And Regulatory Education (FLARE)  
P.O. Box 5157  
Naperville, IL 60567-5157  
Tel: (708) 416-6221

Contact: Manfred Wentz

FLARE is a volunteer organization led by members of International Fabricare Institute, Neighborhood Cleaners Association, R.R. Streets and Co.( a dry cleaning supply company), and the Textile Care Allied Trade Association. FLARE is committed to ensuring favorable treatment by local media and providing representation at all levels of government. The majority of their attention currently is given to environmental legislation and regulation affecting the fabric care industry; however, the FLARE organization is designed to address a much broader spectrum of legislation and regulation as well as public relations issues affecting the industry.

Center for Emission Control (CEC)  
2001 L Street, N.W.  
Suite 506A  
Washington, DC 20036  
Tel: (202) 785-4374

Contact: Steve Risotto

The CEC is an independent not-for-profit organization established in October 1990 to act as a clearinghouse for information about, and to encourage the development and use of, safe and effective work practices, process modifications, control technologies, and other methods to reduce emissions of chlorinated solvent. The CEC has developed a control option document on solvent applications in the dry cleaning industry. The organizations also may undertake and support research and development projects for the creation or application of new technologies or products that will reduce emissions of chlorinated solvents.

**IX. CONTACTS/ACKNOWLEDGMENTS/RESOURCE MATERIALS/BIBLIOGRAPHY**

For further information on selected topics within the Dry Cleaning Industry a list of publications and contacts are provided below:

**Contacts<sup>f</sup>**

Name	Organization	Telephone	Subject
Joyce Chandler	EPA/OECA	(202)564-7073	Regulatory requirements and compliance assistance
Ohad Jehassi	EPA/OPPT	(202)260-6911	Design for the Environment
George Smith	EPA/OAQPS	(919)541-1549	Regulatory requirements (air)

OECA: Office of Enforcement and Compliance Assurance

OAQPS: Office of Air Quality Planning and Standards

OPPT: Office of Pollution Prevention and Toxics

**General Profile**

Brown, Richard R. 1993. TVS Emission Reduction Technology for Dry cleaning. Presented at the Air and Waste Management Association, 86<sup>th</sup> Annual Meeting and Exhibition, Denver Colorado, 1993.

Proceedings of the International Roundtable on Pollution Prevention and Control in the Dry Cleaning Industry, United States Environmental Protection Agency, EPA/774/R-92/002.

Environmental Reporter, 1992. EPA solicitation of comment, notice of information availability on unregulated perchloroethylene emissions from dry cleaning industry. Bureau of National Affairs, Inc., Washington, D.C. October 9.

International Fabricare Institute. 1988. (IFI, 1988). Fundamentals of Dry cleaning.

International Fabricare Institute. 1989. (IFI, 1989). Equipment and Plant Operations Survey. Focus on Dry cleaning. Vol 13(1). March.

Meijer. 1995. Personal communication between Jon Meijer, IFI and Alice Tome, Abt Associates, April.

SRRP. 1990. Source Reduction and Recycling of Halogenated Solvents in the Dry Cleaning Industry-Technical Support Document.

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<sup>f</sup> Many of the contacts listed above have provided valuable background information and comments during the development of this document. EPA appreciates this support and acknowledges that the individuals listed do not necessarily endorse all statements made within this notebook.

Smith. 1995. Memorandum from George Smith, Office of Air Quality Planning and Standards, USEPA to Joyce Chandler, Office of Enforcement and Compliance Assurance, USEPA, May 30.

Torp, Richard. 1994. Personal communication between Richard Torp of the Coin Laundry Association and Alice Tome of Abt Associates, Inc. February.

U.S. Environmental Protection Agency. 1982. (USEPA, 1982). Petroleum Dry Cleaners Background Information for Proposed Standards. Draft EIS. EPA 450/3-82-012a. Office of Air Quality Planning and Standards, USEPA, November.

U.S. Environmental Protection Agency. 1990. (USEPA, 1990). Drycleaning and Laundry Plants, RCRA information sheet, EPA/530-SW-90-027b.

U.S. Environmental Protection Agency. 1991a. (USEPA, 1991a). Dry Cleaning Facilities - Background Information for Proposed Facilities. Draft EIS. EPA-450/3-91-020a. Office of Air Quality, Planning and Standards, U. S. Environmental Protection Agency. November.

U.S. Environmental Protection Agency. 1991b. (USEPA, 1991b). Economic impact analysis of regulatory controls in the dry cleaning industry. Final. EPA-450/3-91-021. Office of Air Quality, Planning and Standards, U. S. Environmental Protection Agency.

U.S. Environmental Protection Agency. 1993a. Economic Analysis of Regulatory Controls in the Dry Cleaning Industry. Final. EPA 450/3-91-021b. September.

U.S. Environmental Protection Agency. 1993b. (USEPA, 1993b). National Emission Standards for Hazardous Air Pollutants for Source Categories - PCE Dry Cleaning Facilities, Final Rule (58 FR 49354).

### **Trade Journals**

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*American Drycleaner* published monthly by American Trade Magazines, Chicago, Illinois.

*The National Clothesline* published monthly by BPS Communications, Philadelphia, Pennsylvania.

*Drycleaners News* published by Zackin Publications, Inc. Waterbury, Connecticut.

### **Process Descriptions and Chemical Use Profiles**

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Kirk-Othmer Encyclopedia of Chemical Technology. 1984. Drycleaning and Laundering.

### **Regulatory Profile**

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Department of Environmental Conservation New York State. (Undated) Draft Part 232 Dry Cleaning Inspection Report. Form listing the information required for a complete facility audit.

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U.S. Environmental Protection Agency. 1993c. (USEPA, 1993c). Multiprocess Wet Cleaning: Cost Performance Comparison of Conventional Dry Cleaning and an Alternative Process, Office of Pollution Prevention and Toxics, EPA 744-R-93-004, September.

Wolf, Katy, 1992. Case Study: Pollution Prevention in the Dry Cleaning Industry: A Small Business Challenge for the 1990s. Pollution Prevention Review, Summer.

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U.S. Department of Health, Education and Welfare, National Institute of Occupational Safety and Health. 1976. Criteria for a recommended standard. Occupation Exposure to Tetrachloroethylene (Perchloroethylene). HEW Publication No. (NIOSH) 76-185.

U.S. Environmental Protection Agency. 1992. Proceedings of the International Roundtable on Pollution Prevention and Control in the Drycleaning Industry. Fact sheet: Air Contamination Above Dry Cleaners. EPA/774/R-92/002.

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U.S. Environmental Protection Agency. USEPA 1989. Solvent Waste Reduction Alternatives. EPA/625/4-89/021.

U.S. Environmental Protection Agency. USEPA 1991c. Preventing Pollution in the Dry Cleaning Business. USEPA Region I Groundwater Management Section and USEPA Headquarters, Office of Groundwater and Drinking Water. (Contains list of contacts for Region I)

Tennessee Department of Environment and Conservation et al. (Undated.) Clearing the Air on Clean Air: Strategies for Perc Dry Cleaners Compliance, Risk Reduction and Pollution Prevention. (Contains a state by state listing of contacts for help on air regulation compliance.)

[Note that several publications by OPPT's Design for the Environment Program on alternative dry cleaning technologies are expected in 1995. Contact: Ohad Jehassi, 202-260-6911, for publication dates.]

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